



DSA PROCEDURE 08-01

Effective Date: 05-01-08

Issue Date: 04-04-08

To: DSA HQ and Regional Offices Staff
Design Professionals for Projects Submitted to DSA for Approval

From: Division of the State Architect Academy
Department of General Services
State of California

Subject: Use of Encrypted Digital Signatures by Design Professionals and the Division of the State Architect for Projects Submitted Through the DSA Electronic Plan Review Program

Purpose: In order to move the Electronic Plan Review Process forward, DSA is implementing "Electronic Stamping".

Background: At the completion of backcheck of an electronic plan review, when all plan review corrections have been completed, the current process requires the Design Team to bring or send paper documents to DSA for identification stamping and scanning into the DSA Information Management System (IMS) as the record sets.

Procedure: DSA wishes to make the entire process electronic. Rather than asking for the paper documents to be sent, DSA will identify the electronic files of corrected documents rather than the "paper" documents. DSA staff will use digital signatures with Public Key Cryptography, as described below, to identify electronic files rather than paper documents. Those files will be transmitted back to the design team for their use, and stored in DSA's IMS as the record sets.

In order for DSA staff to electronically stamp the construction documents for identification, the Architect of Record, Structural, Mechanical, Electrical, Civil Engineers of Record must digitally sign them with Public Key Cryptography as required by the following:

- Must be from one of the approved digital signature certification authorities, as listed on the [California Secretary of State's](http://www.sos.ca.gov/digsig/digsig.htm) web site, at <http://www.sos.ca.gov/digsig/digsig.htm>
- DSA Interpretation of Regulations [IR A-19](#): "Design Professional's Signature and Seal (Stamp) on Construction Documents"

This Procedure describes the requirements for placement of digital signatures on electronic construction documents by Professionals of Record.

This Procedure describes the use of digital signatures on electronic documents by DSA staff for purposes of identification.

Questions regarding this procedure should be directed to Alan Trevor, Senior Structural Engineer, DSA Sacramento Regional Office, at (916) 323-5234 or by e-mail to alan.trevor@dgs.ca.gov.

1. TERMS AND DEFINITIONS:

- 1.1 Certificate Authority:** Any of the authorities listed on the Secretary of State's Web site listed above.
- 1.2 Digital Certificate:** An electronic file issued by a certificate authority combining personal information and a public key. It is issued to individuals for their use in digitally signing electronic documents.
- 1.3 Digital Signature:** A computer-based replacement for original "wet" signatures. A digital signature is a computer file comprising information about the signer and the authorities confirming the signer's identity that is appended to an electronic document. The digital signature ensures that the signed document originated with or was authorized by the signer. A Digital Signature can be either a:
- **Certifying Signature:** A digital signature specifically placed for purposes of securing or locking a document against changes after the signature is placed.
 - **Simple Signature:** For the purpose of this Procedure, Simple Signature will mean a Digital signature used to sign, but not to "certify" and secure a document. See Section 3.31 below.
- 1.4 Digital Signature Field:** A form field created using Adobe® Acrobat® or other software that is specifically created for the placement of a digital signature.
- 1.5 DSA Electronic File Cover Sheet:** An 8 1/2 inch x 11 inch page to cover a combined PDF file. This will be the first page of the electronic construction drawing file, and the electronic construction manual file (specifications). Digital signature fields are placed on this page for the use of DSA staff. See **Figure 1** (page 5 of this Procedure).
- 1.6 Electronic Construction Drawings File:** The electronic file of the plans, sections, elevations, details, schedules, and notes. These drawings are traditionally in 24 inches x 36 inches (Architectural D size), and 36 inch x 42 inch (Architectural E size).
- 1.7 Electronic Construction Manual File:** The electronic files of the specifications and other construction documents, traditionally bound in a book of 8-1/2 inch x 11 inch size.
- 1.8 Electronic Document:** For purposes of this procedure, all electronic documents must be in Portable Document Format, "PDF".
- 1.9 Original, "Wet" Signature:** Also called a "manual" signature, it is the personal and physical placement of the signer's name in ink.
- 1.10 Graphic Representation:** A non-manual (not "wet") copy of a signature or stamp. Examples are computer scans or photocopies of stamps and signatures made from wet-signed originals. See **Figure 3**.
- 1.11 DSA Identification Stamp:** The stamp placed on paper drawings and specifications at the end of backcheck. See **Figure 2**.

2. PREPARATION OF ELECTRONIC DOCUMENTS FOR IDENTIFICATION:

2.1 Space for DSA Identification Stamp: *Do not represent the DSA identification stamp on the drawings, nor in the specifications. DSA staff will place this stamp on the documents at the end of backcheck.*

2.1.1 On Construction Drawings: Leave a space 2 inches long by 1-1/2 inches tall on each sheet of the drawings in the exact same location on each sheet, for placement of the DSA Identification Stamp.

2.1.2 On Construction Manual: Leave a space 2 inches long by 1-1/2 inches tall on the Signature page for placement of the DSA Identification Stamp.

3. PLACEMENT OF SEALS, SIGNATURES, AND DIGITAL SIGNATURES:

3.1 Construction Drawings:

3.1.1 Graphic Representation of Seal and Signature: All pages of the Electronic Construction Drawing File (each page of the document being one sheet of the **drawings**), shall bear a graphic representation of the Professional of Record's seal and signature, in compliance with the appropriate practice acts as given in the Business and Professions Code.

3.1.2 Digital Signatures: Digital signatures shall be placed on pages of the electronic documents at the following locations:

3.1.2.1 For the Architect of Record: The cover sheet of the complete set of drawings, near the graphic representation of the Architect's seal and signature.

3.1.2.2 For other Professionals of Record: The first sheet of structural, plumbing, mechanical, electrical, landscape, and any specialty drawings, near the graphic representation of Professional's seal and signature.

3.2 Construction Manual and Specifications:

3.2.1 The signature page of the specifications shall bear a graphic representation of the seal and signature for all professionals involved.

3.2.2 Digital signatures shall be placed on the signature page next to the graphic representation of the professional's seals and signatures.

3.3 Nature of Digital Signatures:

3.3.1 Certifying Signature: It is possible for a digital signature to be a "certifying signature", securing and thus preventing any changes to be made to the signed document after the signature is placed. DSA will accept only simple signatures on submitted forms and documents. PROFESSIONALS OF RECORD MUST NOT "CERTIFY" ANY DIGITALLY SIGNED FILES. CERTIFYING A FILE WILL PREVENT DSA FROM PLACING THE DSA IDENTIFICATION STAMP ON EACH PAGE OF THE ELECTRONIC CONSTRUCTION DRAWINGS FILE AND ON THE SIGNATURE PAGE OF THE ELECTRONIC CONSTRUCTION MANUAL FILE AT THE END OF THE PROCESS.

3.3.2 Changes to Document: A digital signature will indicate if changes have been made to a document after the signature is placed. This indication takes the form of a yellow caution sign with an exclamation point in it. As digital signatures are placed on a document, previously placed signatures will recognize those newer signatures as changes and show the caution sign. This does not invalidate the digital signature; and will not prevent DSA from accepting the document.

4. IDENTIFICATION OF THE ELECTRONIC DOCUMENTS BY DSA:

- 4.1** DSA plan review staff shall place the DSA Identification Stamp (**Figure 2**) in the spaces provided under item 2.1 above.
- 4.2** DSA plan review staff shall place their initials in the appropriate spaces on the Identification Stamp, as is done in a regular backcheck.
- 4.3** DSA plan review staff shall attach the DSA Electronic File Cover Sheet to the electronic construction drawings file and the electronic construction manual file.
- 4.4** Each DSA Plan Reviewer shall digitally sign the Electronic File Identification Cover Sheet.
- 4.5** These digital signatures will “certify” the electronic documents, thus securing the documents against any changes.
- 4.6** DSA staff shall upload these electronic documents to the FTP server for the use of the design professionals.

Figures

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IDENTIFICATION OF ELECTRONIC FILE

THE DIGITAL SIGNATURES ATTACHED TO THESE PLANS AND SPECIFICATIONS ARE FOR IDENTIFICATION PURPOSES ONLY AND DO NOT CONSTITUTE APPROVAL OF THIS APPLICATION FOR START OF CONSTRUCTION. ANY CHANGE OR DEVIATION FROM THE INFORMATION CONTAINED IN THESE CONSTRUCTION DOCUMENTS MUST BE APPROVED BY THE DIVISION OF THE STATE ARCHITECT

PROJECT : 34-39

DSA FILE NUMBER : 02-10XXXX

INCREMENT NUMBER : 0X

IDENTIFICATION DATE : Mar 21, 2008

DSA PLAN REVIEWERS:

ACCESS COMPLIANCE :



FIRE AND LIFE-SAFETY :



STRUCTURAL SAFETY :



Figure 1:
DSA Electronic File Cover Sheet

IDENTIFICATION STAMP		
DIVISION OF THE STATE ARCHITECT		
02 –		
AC	FLS	SS
DATE		

FIGURE 2:
DSA Identification Stamp



FIGURE 3:
An example of a Graphic Representation